

ABSTRACT

Techniques to search for a gated pilot reference in a wireless communication system. In one method, an overall code space in which the pilot may be found is partitioned into a number of groups of code sets, with each code set representative of all possible chip offsets of a specific PN sequence. The groups are ordered based on the likelihood of detecting the pilot in each of the groups. The groups of code sets are then used to search for the pilot, one group at a time, starting with the group most likely to result in successful pilot acquisition and ending with the group least likely to result in successful pilot acquisition. The search is terminated upon successful acquisition. The pilot search may be performed using detect, dwell, and pull-in substages. The detect substage for one group may be performed in parallel with the pull-in substage for another group.